

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A system for providing interactive program guide (IPG), the system comprising:

a plurality of encoding units operative to encode a plurality of IPG pages and generate a plurality of streams, wherein each IPG page is associated with a stream and is assigned a respective packet identifier (PID);

at least one transport stream generator operatively coupled to the plurality of encoding units, each transport stream generator operative to receive and multiplex selected ones of the plurality of streams from one or more encoding units into one or more transport streams; and

a session manager coupled to the at least one transport stream generator and operative to direct each transport stream generator to generate the one or more transport streams based on usage wherein the session manager performs an additional function of bandwidth manager.

2. (Original) The system of claim 1, further comprising:

a bandwidth manager coupled to the plurality of encoding units and the session manager, the bandwidth manager operative to monitor usage and report to the session manager.

3. (Original) The system of claim 1, wherein the plurality of encoding units are operative to encode only once each IPG page to be transmitted from the at least one transport stream generator.

4. (Original) The system of claim 1, wherein the number of transport streams generated by each transport stream generator is dynamically adjusted based on demands from a neighborhood being served by the transport stream generator.

5. (Original) The system of claim 1, wherein the session manager directs a particular transport stream generator to generate an additional transport stream as usage increases and exceeds the capacity of currently transmitted transport stream(s).

6. (Original) The system of claim 1, wherein the session manager directs a particular transport stream generator to generate an additional transport stream if the number of streams to be transmitted by the particular transport stream generator exceeds the capacity of currently transmitted transport stream(s).

7. (Original) The system of claim 1, wherein the session manager directs a particular transport stream generator to generate an additional transport stream if a required number of PIDs exceeds a maximum number of PIDs supported by currently transmitted transport stream(s).

8. (Original) The system of claim 1, wherein the session manager directs a particular transport stream generator to tear down a transport stream if usage falls below the capacity of remaining transport streams.

9. (Original) The system of claim 1, wherein each transport stream generator is operative to serve a respective group of terminals within a particular neighborhood.

10. (Original) The system of claim 1, wherein each transport stream generator is operable to provide differentiated IPG via the one or more transport streams generated by the transport stream generator.

11. (Original) The system of claim 1, wherein a plurality of transport streams are generated by a particular transport stream generator, and wherein each of the plurality of transport streams includes a respective set of IPG pages.

12. (Original) The system of claim 11, wherein the plurality of transport streams from the particular transport stream generator include overlapping sets of IPG pages.

13. (Original) The system of claim 11, wherein each of the plurality of transport streams from the particular transport stream generator includes one or more common IPG pages.

14. (Original) The system of claim 11, wherein the sets of IPG pages for the plurality of transport streams from the particular transport stream generator are organized to reduce likelihood of switching between transport streams at a receiving device.

15. (Original) The system of claim 11, wherein the sets of IPG pages for the plurality of transport streams from the particular transport stream generator are organized to increase likelihood of PID transitions within the same transport stream.

16. (Original) The system of claim 1, wherein each encoding unit is operative to implement a slice-based encoding scheme.

17. (Original) The system of claim 1, wherein each encoding unit is operative to implement a picture-based encoding scheme.

18. (Currently Amended) A system for providing interactive program guide (IPG), the system comprising:

at least one transport stream generator, each transport stream generator including at least one encoder unit operative to encode a plurality of IPG pages and generate a plurality of streams, wherein each of the plurality of streams generated for the plurality of IPG pages is assigned a respective packet identifier (PID), each transport stream generator operative to generate one or more transport streams having included therein the plurality of streams generated for the plurality of encoded IPG pages;

a session manager coupled to the at least one transport stream generator and operative to direct each transport stream generator to generate the one or more transport streams based on usage wherein the session manager performs an additional function of bandwidth manager.

19. (Canceled)

20. (Currently Amended) A method for providing interactive program guide (IPG) from a transmission source to a plurality of terminals, the method comprising:

monitoring demands from the plurality of terminals;

determining a current capacity of one or more transport streams carrying IPG pages of said IPG to the plurality of terminals, each page of said IPG having an assigned packet identifier (PID);

comparing the demands from the plurality of terminals against the current capacity; and

dynamically adjusting the number of transport streams to be transmitted to the plurality of terminals based on a result of the comparing wherein a session manager performs an additional function of bandwidth manager.

21. (Original) The method of claim 20, further comprising:

providing an additional transport stream for the plurality of terminals if the demands exceeds the current capacity.

22. (Original) The method of claim 20, further comprising:

providing an additional transport stream for the plurality of terminals if a required number of packet identifiers (PIDs) exceeds a maximum number of PIDs supported by the one or more transport streams currently being transmitted.

23. (Original) The method of claim 20, further comprising:

tearing down a particular currently transmitted transport stream if the demands fall below the capacity of remaining transport streams.